L 10799-63
APCC--Pe-4/Pg-4/P1-4/P1-4/Po-4/Pq-4--TT/GW   EWT(1)/FCC(w)/FS(v)/BDS/ES(v)--AEDC/AFFTC/ASD/AFMDC/ESD-3/

ACCESSION NR: AP3000793

S/0203/63/003/003/0408/0416

AUTHOR: Krasovskiy, V. I.; Gal'perin, Yu. I.; Temnyy, V. V.; Mulyarchik, T.M.;
Dzhordzhio, N. V.; Marov, M. Ya.; Bolynmova, A. D.

TITLE: Some new results of geophysical studies made by Kosmos-3 and Kosmos-5
satellites

SOURCE: Geomagnetizm i aeronomiya, v. 3, no. 3, 1963, 408-416

TOPIC TAGS: Kosmos-3, Kosmos-5, radiation belt, particle counter, upper
atmosphere radiation, radiation, upper atmosphere Cosmos-3, Cosmos-5

ABSTRACT: Concentrations and intensities of charged particles as measured by
the Kosmos-3 and Kosmos-5 satellites are analyzed. The satellites used
combinations of three types of recorders: 1) a collector tube with fluorescent
screen sensor and photomultiplier, 2) an ion trap with a ring electrode
collector located in a permanent magnetic field, and 3) a Geiger counter with
a 3-mm lead shield, which registered only electrons above 0.4 Mev and protons
above 50 Mev. Particles recorded by these sensors fell into three energy

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ACCESSION NR: AP3000793

O

groups: 1) high-energy protons and electrons recorded by the Geiger counter,
2) electrons of about 100 Kev; and 3) electrons of the order of 1--10 Kev. No
observable correlation appears to exist among these groups. Isoline contours
in earth coordinates are given for groups 1 and 2 showing their energy
distribution over the South Atlantic region, where intensity was maximum.
These data are in the 650-km altitude region and show that the coordinates of
maximum intensity areas shifted with succeeding passes of the satellite. Some
possible explanations for this shift are suggested, which are postulated on
the lifespan of the particles relative to satellite orbit time. In equatorial
latitudes at a 200--400-km altitude the Geiger count did not average over 1.8
pulses/sec. In contrast, the Geiger count recorded by Kosmos-5 in the vicinity
of apogee (1600 km) exceeded 1500 pulses/sec and showed a strong periodicity
with satellite rotation, indicating that these high-energy particles are trapped
in the geomagnetic field and moving normal to its lines of force. Group 3
electrons, which were sporadic in appearance and located mainly in the polar
latitudes, varied in intensity proportionally with altitude. The retarding of
the satellites due to particle friction at the perigees (200 km for Kosmos-5)
was noted to be less than for the 1958 sputniks, which indicates less

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ACCESSION NR: AP3000793

geomagnetic activity during the present observations (April-May 1962).
Orig. art. has: 10 figures and 1 table.

ASSOCIATION: Institut fiziki atmosfery AN SSSR (Institute of the Physics of
the Atmosphere, AN SSSR)

SUBMITTED: 31Jan63

SUB CODE: SP, AS

DATE ACQ: 21Jun63

NO REF SOV: 010

ENCL: 00

OTHER: 010

cs/wr

Card 3/3

KRASOVSKIY, V.I., doktor fiz.-matem.nauk

Auroras and the radiation of the night sky. Vest. AN SSSR 33
no.9:30-32 S '63.
          (Auroras) (Night sky)   (MIRA 16:9)

KRASOVSKIY, V.I.; TRUTTSE, Yu.I. and SHEFOV, N.N.

"Problem relating to the Power of Aurorae"

"On the mechanism of maintenance of Nocturnal Ionosphere."

Report submitted for the COSPAR Fifth International Space Science Symposium, Florence, Italy, 8-20 May. 1964

ACCESSION NR: AP4034793   S/0293/64/002/002/0219/0231

AUTHOR: Krasovskiy, V. I.

TITLE: Auroras and night airglow

SOURCE: Kosmicheskiye Issledovaniya, v. 2, no. 2, 1964, 219-231

TOPIC TAGS: geophysics, upper atmosphere, night airglow, aurora, solar wind, geomagnetic disturbance, interplanetary plasma, geomagnetic field

ABSTRACT: A report presented by the author at a plenary session of the COSPAR symposium in Warsaw on June 4, 1963 has now been published. The paper essentially represents a review of the literature on auroras and night airglow (60 papers were cited in the report). In many cases the summarization is accompanied by critical comments as to the status of investigations concerning individual aspects of these problems. In conclusion, the author notes that exhaustive data concerning these pro-cesses are by no means yet available and there is no finalized acceptable theory ac-counting for their occurrence. Despite the length of the report the speaker dis-claims any intention of presenting a review of the hypotheses on this problem. He expresses the opinion that auroras represent one of the most important links in the processes of interaction between the geomagnetic field and interplanetary plasma (or the solar wind) and between the electrically conductive ionized upper atmosphere and
Card   1/2

ACCESSION NR: AP4034793

Interplanetary magnetic fields, and also the interaction of the upper atmosphere
with the geomagnetic field at the time of its rotation.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 20May64

ENCL: 00

SUB CODE: ES, AA

NO REF SOV: 016

OTHER: 044

Card 2/2

L 41816-65   ENT(1)/FSS-2/FS(v)-3/ENG(s)-2/ENG(v)/FCC/ENA(d)/EEC-4/EEC(t)/ENA(h)
Po-4/Pe-5/Pq-4/Pae-2/Peb/Pi-4   TT/GW-2
ACCESSION NR: AP5009653   UR/0293/65/003/002/0334/0336

AUTHOR: Krasovskiy, V. I.

TITLE: Iono_ _eric winds and peculiarities in the distribution of charged
particles in the geomagnetic field

SOURCE: Kosmicheskiye issledovaniya, v. 3, no. 2, 1965, 334-336.

TOPIC TAGS: geomagnetic field theory, ionospheric wind, satellite observation,
geomagnetism, charged particle distribution, upper atmosphere

ABSTRACT: The author considers the hypothesis of D. G. King-Hele (Planet. Space
Sci., 12, No. 9, 835, 1964) to the effect that there are considerable winds in the
upper regions of the atmosphere at heights of 200-300 km. These winds are said to
blow in an easterly direction with a velocity (with respect to the Earth) which may
exceed 10^4 cm · sec.$^{-1}$. As one possibility, King-Hele suggests that these wind
movements are generated by the flow-off of air, highly heated over the equator, to-
ward the poles, where the temperature of the outer atmosphere is lower. According
to the author of this article, if the King-Hele postulate is actually correct,
then this circulation must also have an effect on the distribution of captured
charged particles in the geomagnetic field. Reasoning along these lines, the
author demonstrates that if the wind velocity along geographic parallels has a
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L 41816-65
ACCESSION NR: AP5009653

2

value on the order of $3 \cdot 10$ cm·sec^{-1}, the emf might reach 10^{-4} volts per cm^{-1} along the geomagnetic meridian in a direction perpendicular to the geomagnetic lines of force. Consequently, by way of example, in the 1000-km segment, an emf would arise which would be as high as 10^4 volts, while between the equatorial ionosphere and the geomagnetic tubular channels resting on the polar regions the emf would exceed this value. In this case, the electric field intensity in the equatorial plane at the height of about one terrestrial radius might be near 10^{-4} volt · cm^{-1}. The author also notes that if the axis of rotation of the Earth were to coincide with the axis of an ideal central magnetic dipole, there would exist, near the equatorial plane, an electrical field, identical in magnitude and direction at all longitudes and perpendicular to the geomagnetic lines of force, in which case the drift surfaces of the trapped charged particles would remain unchanged in comparison with the drift in an electrically neutral geomagnetic field. The author describes in detail how this picture changes substantially when the geomagnetic dipole, for example, is shifted considerably away from the axis of rotation of the Earth with the parallelism of the axis left undisrupted. It is claimed that observations made by means of the Kosmos-3 and Kosmos-5 satellites confirm the authenticity of the pattern which the author has theoretically reconstructed in this part of the article. During geomagnetic perturbations and polar light phenomena (aurora borealis), the outer region of the atmosphere over the high latitudes may be even hotter than over the equator. In this case, the geostrophic wind from the equator-

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L 41816-65
ACCESSION NR: AP5009653

ial regions may temporarily cease. There is even the possibility, in the event of very intense heating of the outer regions of the polar atmosphere, that the heated air may flow off in the direction of the equator. The effect of possible polarity changes in trapped charged particles as a result of ionospheric wind conditions is also discussed.

ASSOCIATION: None

SUBMITTED: 26Oct64

ENCL: 00

NO REF SOV: 004

OTHER: 009

SUB CODE: ES

Card   3/3

L 21030-66   FSS-2/EWT(1)/FCC/EWA(d)/EWA(h)   TT/GS/GW

ACCESSION NR: AT5023553

UR/0000/65/000/000/0011/0023

AUTHOR: Krasovskiy, V. I.

TITLE: Physics of the upper atmosphere and circumterrestrial space

14
13
B+1

SOURCE: Vsesoyuznaya konferentsiya po fizike kosmicheskogo prostranstva. Moscow, 1965. Issledovaniya kosmicheskogo prostranstva (Space research); trudy konferentsii. Moscow, Izd-vo Nauka, 1965, 11-23

TOPIC TAGS: artificial earth satellite, Kosmos series satellite, ionosphere, circumterrestrial space, ionosphere heating, atmospheric emission, magnetosphere, radiation belt, polar glow

ABSTRACT: Circulation processes and the following associated problems in the upper atmosphere above 100—150 km are discussed: 1) heating of the upper atmosphere; 2) atmospheric emissions; 3) the electric field in the magnetosphere and the drift of charged particles; 4) the earth's radiation belts under the effect of the magnetospheric electric field; and 5) polar glow and the interaction of the solar wind with the magnetosphere and ionosphere. It is noted that the usefulness of artificial earth satellites and rockets for observations of polar glow is limited, owing to their relatively high velocity through the highly

Card 1/2

L 21030-66

ACCESSION NR: AT5023553

immobile and concentrated forms of luminescence regions. The review is based on
41 references, of which 24 are Soviet. The Soviet data analyzed were obtained
principally by means of the Kosmos-series artificial earth satellites. Orig. art.
has: 3 figures.

[YK]

ASSOCIATION: none

SUBMITTED: 02Sep65

ENCL: 00

NO REF SOV: 012

OTHER: 029

SUB CODE: ES, SV

ATD PRESS: 4094

Card 2/2 BK

SKURIDIN, G.A., otv. red.; AL'PERT, Ya.L., red.; KRASOVSKIY, V.I.,
    red.; SHVAREV, V.V., red.

[Studies of outer space; transactions] Issledovaniia kosmi-
cheskogo prostranstva. Moskva, Nauka, 1965.   622 p.
                                    (MIRA 18:12)
1. Vsesoyuznaya konferentsiya po fizike kosmicheskogo pro-
stranstva, Moscow. 1965.

KRASOVSKIY, V. K., Cand. Tech. Sci.   (diss) "Manufacture of Heavy Soda by Monohydrate Method with Phase of Dehydration in "Boiling" Layer," Khar'kov, 1961, 15 pp. (Khar'kov Polytech. Inst.) 150 copies (KL Supp 12-61, 269).

RYDNIK, V.L.; KRASOVSKIY, V.K.; TRIPOL'SKIY, A.A.

Necessity for organizing heavy soda production. Khim. prom. 41 no.3:
200-201 Mr '65.   (MIRA 18:7)

1. Nauchno-issledovatel'skiy institut osnovnoy khimii, Khar'kov.

L 43:10-65   EWP(m)/EWO(v)/EWA(c)/EWT(l)/FCS(k)   Pd-1/Pe-5   WW

ACCESSION NR: AP5011318   UR/0258/65/005/002/0249/0253

AUTHOR: Krasovskiy, V. M. (Moscov)

TITLE: An experimental investigation of hypersonic flow over blunt-nosed bodies

SOURCE: Inzhenernyy zhurnal, v. 5, no. 2, 1965, 249-253

TOPIC TAGS: hypersonic flow, hypersonic flow over cone, hypersonic area rule,
drag coefficient, skin friction, boundary layer interaction, reference enthalpy
method, lift

ABSTRACT: A hypersonic flow of helium over blunt bodies was investigated in order
to substantiate the hypersonic area rule. The experiments were carried out on
blunted bodies of simple form equivalent to a circular cone with semiapex angle
$\beta = 5°$, that is, trihedral and tetrahedral pyramids and a certain body of more
complex form composed of several cones at $M \cong 18$ and $R_\infty \sim 10^6$ (see Fig. 1 of the
Enclosure). The area of the corresponding cross sections of all bodies was the
same. The results obtained with various models at zero angle of attack are given
in graphs with $\bar{C}_x$ versus $K_1 = (\pi/2C_x\beta)^{1/2}$ $L \tan^2 \beta$, where $\bar{C}_x$ is the ratio of
the drag coefficient of the body and the drag coefficient of an equivalent sharp-
nosed cone. The drag coefficient C_x due to blunting was taken to be equal to 1.6

Card 1/4

L 43210-65

ACCESSION NR: AP5011318   0

for all shapes with flat blunting, according to experimental data. It was observed
that the drag coefficients of equivalent bodies can differ substantially in the
case of slightly blunted bodies such as trihedral pyramidal and circular cones in
the range $K > 0.3$. The drag coefficients of sharp-nosed cones were computed with
skin friction and shock wave-boundary layer interaction taken into account. Skin
friction drag was determined by a reference enthalpy method. The discrepancy be-
tween the experimental and the calculated values of the drag coefficient was found
to be less than 5%, and the drag coefficient of a cone with semiapex angle of 5°
is smaller, not larger than the coefficients of the equivalent sharp-nosed pyramids
as follows from Newton's theory. An analysis of the results obtained by the
author with those of others shows that: 1) the hypersonic area rule is satisfied
for a certain class of bodies equivalent to circular cones; 2) the drag coefficient
of blunt-nosed cones at least does not exceed that of a sharp-nosed cone in a
certain range of K_e, within the limits of accuracy of the experiments; and 3)
blunting of a conical nose leads to a substantial decrease in lift in comparison
with a sharp-nosed cone at small values of the angle of attack. Orig. art. has:
4 figures.   [AB]

ASSOCIATION: none

Card 2/4

L 43210-65

ACCESSION NR: AP5011318

SUBMITTED: 22Sep64   ENCL: 01   SUB CODE: ME,AS

NO REF SOV: 006   OTHER: 001   ATD PRESS: 3242

O

Card 3/4

KRASOVSKIY, V.P.

Observations of the propagation of desmans in outdoor cages.
Zool.zhur.33 no.1:180-183 Ja-F '54.   (MLRA 7:2)

1. Khoperskiy gosudarstvennyy zapovednik.   (Desmans)

Krasovskiy, V.P.

USSR/Biology--Zoology

Card 1/1   Pub. 86--33/39

Authors   : Makridin, V. P., Cand. Biol. Sc., and Krasovskiy, V. P.

Title   : The expansion of the area of the elk.

Periodical : Priroda 44/1, page 119, Jan 1955

Abstract   : The prevalent idea that the areas inhabited by the elk are limited to
              forest lands is refuted by the finding of elk in regions where they
              were not known to be before, especially in the northern European tundras.
              It is also noted that elk make seasonal migrations. One USSR reference
              (1944).

Institution : Scientific Research Institute of Polar Agriculture, Animal Husbandry
               and Industry

Submitted   : .....

14-57-7-15098

Translation from: Referativnyy zhurnal, Geografiya, 1957, Nr 7,
                    p 147 (USSR)

AUTHOR: Krasovskiy, V. P.

TITLE: Reestablishment of Beavers on the Khoper River
                (Reakklimatizatsiya bobrov na reke Khopre)

PERIODICAL: Tr. Khopersk. gos. zapovednika, 1956, Nr 2, pp 73-96

ABSTRACT: All the beavers of the Khoper River descend from 20
                animals which were released in the game preserve
                during 1937 and 1939. The beavers started to spread
                out in 1943. At first they were found only in old
                river beds, but after 1950 they were found on the
                banks of the Khoper River. In 1953 there were 77
                beaver settlements on 64 bodies of water in the game
                preserve, while 380 or 390 beavers occupying 102
                settlements on 82 bodies of water, were counted in
                the Khoper River basin. High floods of the Khoper

Card 1/2

14-57-7-15098

Reestablishment of Beavers on the Khoper River (Cont.)

River, which coincide with the season when the young were born, did
not affect their numbers. However, the recent drying up of water
had a detrimental effect on the beavers. The author cites an inci-
dent in which a pair of beavers did not abandon a dried area; in-
stead, they burrowed to below the ground water level and continued
to live there for several years. The author lists the plants which
supply the beavers with food.
Card 2/2

L. D.

SKVORCHEVSKIY, N.D.;KRASOVSKIY, V.P.;DOVROVOL'SKIY, S.I.;SHURMAN, B.A.

First experience of the use of EKG excavators. Gor. zhur. no.1:
58-61 Ja '57.   (MLRA 10:4)

1. Glavnyy inzhener Kounradskogo rudnika (for Skvorchevskiy).
2. Noril'skiy gorno-metallurgicheskiy kombinat. (for Krasovskiy,
Dobrovol'skiy, Shurman).
            (Excavating machinery)

KHACHATUROV, T.S., Prinimali uchastiye: BAKULEV, G.D., doktor ekon.nauk; VAYNSHTEYN, B.S.; VARENTSOV, Ya.P.; KLIMENKO, K.I., doktor ekon. nauk; KRASOVSKIY, V.P., kand.ekon.nauk; KURAKOV, I.G.; FERBERG, A.S., kand.ekon.nauk. SHUSTER, A.I., otv.red.; STREL'NIKOVA, M.A., red.; GERASIMOVA, Ye.S., tekhn.red.

[Standard method for determining the economic effectiveness of capital investments and new technology in the national economy of the U.S.S.R.] Tipovaia metodika opredeleniia ekonomicheskoi effektivnosti kapital'nykh vlozhenii i novoi tekhniki v narodnom khoziaistve SSSR. Moskva, Gosplanizdat, 1960. 21 p.   (MIRA 13:7)

1. Akademiya nauk SSSR. 2. Chlen-korrespondent Akademii nauk SSSR (for Khachaturov). 3. Institut ekonomiki AN SSSR (for Bakulev, Klimenko). 4. Institut ekonomiki stroitel'stva Akademii stroitel'stva i arkhitektury SSSR (for Vaynshteyn). 5. Gosplan SSSR (for Varentsov). 6. Nauchno-issledovatel'skiy ekonomicheskiy institut Gosplana SSSR (for Krasovskiy). 7. Gosudarstvennyy nauchno-tekhnicheskiy komitet SSSR (for Kurakov). 8. Stroybank SSSR (for Ferberg). 9. Nauchnyy sovet po probleme ekonomicheskoy effektivnosti kapital'nykh vlozheniy i novoy tekhniki (for Shuster).
        (Capital investments)   (Machinery in industry)

KLIMENKO, Konstantin Ivanovich, doktor ekonom.nauk; KATSENELINBOYGEN,
Aron Iosifovich, kand.ekonom.nauk; OSADA, P.A., red.;
KRASOVSKIY, V.P., spetsred.; GERASIMOVA, Ye.S., tekhn.red.

[Economic efficiency of over-all mechanization and automation
in the machinery industry] Ekonomicheskaia effektivnost'
kompleksnoi mekhanizatsii i avtomatizatsii v mashinostroenii.
Moskva, Gosplanizdat, 1960.   221 p.

(MIRA 14:2)
(Automation)   (Machinery industry--Technological innovations)

KHACHATUROV, T.S., otv. red.Prinimali uchastiye: BOR, M.Z., kand.
    ekon. i istor. nauk, red.; BOL'SHAKOV, Ya.A., red.; DYLEVSKIY,
    A.A., red.; YEMEL'YANOV, A.D., kand.ekon. nauk, red.;
    KRASOVSKIY, V.P., red.; SHUSTER, A.I., red.

[Methodology for determining the economic efficiency of
introducing new machinery, mechanization and autoration of
industrial production processes. Approved by the State Planning
Commission of the U.S.S.R. on December 9, 1961]Metodika oprede-
leniia ekonomicheskoi effecktivnosti vnedreniia novoi tekhniki,
mekhanizatsii i avtomatizatsii proizvodstvennykh protsessov v
promyshlennosti. Utverzhdeno 9 dekabria 1961 g. Moskva, Izd-
vo Akad. nauk SSSR, 1962. 45 p.   (MIRA 15:11)

1. Russia (1923- U.S.S.R.)Gosudarstvennaya planovaya komissiya.
2. Chlen-korrespondent Akademii nauk SSSR (for Khachaturov).
3. Gosudarstvennyy planovyy komitet Soveta Ministrov SSSR (for
Bor, Dylevskiy). 4. Moskovskiy oblastnoy sovet narodnogo kho-
zyaystva (for Bol'shakov). 5. Nauchno-issledovatel'skiy ekono-
micheskiy institut Gosudarstvennogo ekonomicheskogo soveta pri
Sovete Ministrov SSSR po tekushchemu planirovaniyu narodnogo
khozyaystva (for Yemel'yanov, Krasovskiy). 6. Akademiya nauk SSSR
(for Shuster).
            (Technological innovations)   (Automation)

BOCHAROV, V.N.; DUDAYEVA, L.M.; YEVDOKIMOV, V.M.; KOLOSOV, A.F.;
     KRASOVSKIY, V.P.; LUK'YANOV, E.B.; MUSATOVA, V.A.; NOVIKOV,
     M.S.; SUKHOVANCHENKO, G.P.; TABELEV, V.V.; TOLKACHEV, A.S.;
     CHERTKO, V.F.[deceased]; SHTANSKIY, V.A.; PAK, G.V., red.;
     SELESNEVA, A.D., mlad. red.

     [Structure of capital investments in the U.S.S.R. and the
     U.S.A.; analysis and methods of comparison] Struktura kapi-
     tal'nykh vlozhenii SSSR i SShA: analiz i metody sopostav-
     lenija. Moskva, Ekonomika, 1965. 250 p. (MIRA 18:5)

     1. Moscow. Nauchno-issledovatel'skiy ekonomicheskiy insti-
     tut.

KVASHA, Ya.; KRASOVSKIY, V.

Reproduction of capital assets and establishing norms for capital
expenditures. Vop. ekon. no.9:47-59 S '62.   (MIRA 15:9)
     (Capital investments)   (Capital)

KVASHA, Ya.; KRASOVSKIY, V.

Interbranch balance and its relation to planning capital invest-
ments. Vop. ekon. no.7:48-58 Jl '63.   (MIRA 16:8)
        (Economics, Mathematical) (Capital investments)

L 10285-66   EWT(1)/EWT(m)/EWP(t)/EWP(b)   IJP(c)   JD/GG

ACC NR: AP5025320   SOURCE CODE: UR/0126/65/020/003/0373/0378

AUTHOR: Fakidov, I. G.; Volegov, L. P.; Krasovskiy, V. P.
         44,55   44,55   44,55

ORG: Institute of Physics of Metals, AN SSSR (Institut fiziki metallov AN SSSR)

TITLE: Magnetoelastic properties of antiferromagnetic compound MnAu$_2$

SOURCE: Fizika metallov i metallovedeniye, v. 20, no. 3, 1965, 373-378

TOPIC TAGS: intermetallic compound, antiferromagnetism, elastic modulus, magnetic
property, elasticity, antiferromagnetic material, shear modulus, manganese
compound, gold compound

ABSTRACT: Polycrystalline cylindrical samples of MnAu$_2$ were made by smelting at
1100C a mixture of Mn (99.98% pure) and Au (99.99%), subsequent casting, and heat
treatment providing magnetic properties described by A. Meyer and P. Taglang
(J. Phys. Rad., 1956, 17, 457). The intermetallic compound had a helicoid spin
structure, a Néel temperature $T_N = 90C$, a threshold $H_t = 8000$ oe, and a density
$\rho = 15.4$ g cm^{-3}. The changes in the shear modulus G and the Young modulus E were
determined under changing conditions of temperature (20 - 140C) and external
magnetic field. The curves showing relative changes of shearing modulus G/G_0

Card 1/2   UDC: 538.65+539.32

L 10285-66

ACC NR: AP5025320   O

$(G_0$ at 20C was 11.56x10 dyne/sq cm) with temperature were plotted for the sample in the antiferromagnetic (H = 0) and ferromagnetic state (H = 18,000 oe). The curve H = 0 showed that G decreased with increased temperature, reached a minimum at 800C, acquired a maximum in the Neel point $(T_N = 96C)$, and decreased continuously in the paramagnetic region. The G of $MnAu_2$ changed little with increased field to the threshold value (H = 8000 oe), then sharply decreased and reached a minimum at H = 16,000 oe. The shearing modulus G of $MnAu_2$ in the ferromagnetic state (H = 18,000 oe) did not exhibit any noticeable anomalous changes during the antiferromagnetism → ferromagnetism transition in the Curie point. The changes in anomaly of the shearing modulus during the antiferro-magnetism-ferromagnetism transition were sharper than those of the Young modulus. This was related possibly to the helicoid distribution of magnetic moments. The anomalous behavior of the Young and shearing moduli was a result of disintegration of the helicoid spin structure brought about by the magnetic transformations antiferromagnetism → paramagnetism $(T = T_N$ and H = 0), and antiferromagnetism → ferromagnetism $(T < T_N$ and $H > H_t)$. Orig. art. has: 5 figures.

SUB CODE: 20 / SUBM DATE: 14Sep64/   NR REF SOV: 004/ OTHER: 007

Card   2/2   hw

137-58-6-11894 D

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 6, p 101 (USSR)

AUTHOR: Krasovskiy, V.

TITLE: Economic Effects of the Introduction of New Process Pro-
            cedures in Nonferrous Metallurgy (Based on a Comparison of
            Variants in the Copper and Nickel Industry) [Ekonomicheskaya
            effektivnost' vnedreniya novykh tekhnologicheskikh protsessov
            v tsvetnoy metallurgii (na primerakh svravneniya variantov v
            medno-nikelevom proizvodstve)]

ABSTRACT: Bibliographic entry on the author's dissertation for the de-
            gree of Candidate of Economic Sciences, presented to the Mosk.
            in-t tsvetn. met. i zolota (Moscow Institute of Nonferrous
            Metals and Gold), Moscow, 1957

ASSOCIATION: Mosk. in-t tsvetn. met. i zolota (Moscow Institute of Non-
            ferrous Metals and Gold), Moscow

            1. Copper--Processing   2. Nickel--Processing   3. Copper--Economic aspects
            4. Nickel--Economic aspects

Card 1/1

Krasovskiy, V.P.

136-10-11/13

. AUTHOR: Krasovskiy, V.P.

TITLE: Economic Effectiveness of Progressive Methods of Separating
         Converter Mattes.(Ekonomicheskaya effektivnost' progressivnykh
         metodov razdeleniya faynshteynov)

PERIODICAL: Tsvetnyye Metally, 1957, Nr 10, pp.72-79 (USSR)

ABSTRACT: The author points out the difficulties of estimating the
         economic advantages of introducing new plant in view of
         technical progress, the time needed for operators to get
         accustomed to the plant, the expected cheapening of energy
         and materials, the possibility of integrating new plant in
         still later processes and other factors. He considers in
         detail the case of the separation of converter mattes in the
         copper-nickel industry, where the recently introduced flota-
         tion process of Professor I.N.Maslenitskiy may itself be re-
         placed by the autoclave method on which experiments have been
         carried out by the Gipronikel' and Gintsvetmet organizations
         and some works. He shows the application of his dynamic cri-
         teria to such a possible replacement, tabulating cost factors
         for 15-year periods, stating the simplifying assumptions used
         and discussing the significance of the results.
         There are 2 tables and 1 Slavic reference.

AVAILABLE: Library of Congress.
Card 1/1

AUTHORS: Fakidov, I.G.   and   Krasovskiy, V.P.

TITLE: Electrical Conductivity of Manganese Phosphides
         (Elektroprovodnost' fosfidov margantsa)

ABSTRACT: The author studied the temperature dependences of the
          electrical resistance of Mn-P alloys with 33-53 at.%
          of P.   These alloys were prepared from electrolytic
          manganese which was purified by sublimation, and from
          99.9% pure red phosphor.   The preparation of these alloys
          followed the technique described by Wiechmann (Ref.3).
          The following five alloys were studied: Mn_2P (33 at.% of P),
          Mn_2P + MnP (40 at.% of P),   MnP + Mn_2P (46 at.% of P),
          MnP (50 at.% of P) and an alloy with 53 at.% of P.   All
          these alloys were ferromagnetic.   The samples were in the
          form of plane parallel plates.   Their electrical resistance
          was measured by means of a d.c. potentiometer.   The
          resistivities are given in a table on p 156 (in ohm.cm).
Card 1/2 Fig.1 gives the temperature dependences of the electrical

SOV/126-7-1-26/28

Electrical Conductivity of Manganese Phosphides

resistance of Mn_2P and MnP between 77 and $370^{\circ}K$. The curves shown in Fig.1 and the curves obtained for the other three alloys all have a break at $22^{\circ}C$. This break is similar to that observed in ferromagnetics on passing through the Curie point. The authors conclude that in fact there is a Curie point at $22^{\circ}C$. There is 1 figure, 1 table and 4 references, of which 2 are French, 1 German and 1 Soviet.

ASSOCIATION: Institut fiziki metallov AN SSSR   (Institute of Metal Physics, Ac.Sc. USSR)

SUBMITTED: March 4, 1958

Card 2/2

24(3)   SOV/126-7-2-28/39

AUTHORS: Fakidov, I. G. and Krasovskiy, V. P.

TITLE: Galvanomagnetic Properties of Manganese Phosphides
          (Gal'vanomagnitnyye svoystva fosfidov margantsa)

PERIODICAL: Fizika Metallov i Metallovedeniye, 1959, Vol 7, Nr 2,
          pp 302-304 (USSR)

ABSTRACT: The authors studied the Hall effect and magneto-
          resistance of Mn-P alloys, with 33-53 at.% of P. These
          properties were studied in order to obtain information
          about the energy spectrum and density of current carriers,
          and to elucidate the effect of magnetic fields on the
          magnetic transition temperature, reported by Guilland
          (Ref 1). The galvanomagnetic properties were measured
          on samples in the form of 11 x 5 x 0.8 mm plates. All
          measurements were carried out by the d.c. potentiometric
          method. The Hall effect was measured on samples with
          33 at.% P (Mn_2P), 40 at.% P (Mn_2P + MnP), 46 at.% P
          (MnP + Mn_2P), 50 at.% P (MnP). The sign of the Hall
          effect was positive in all the alloys studied, confirming
          the hole mechanism of conductivity. Thermoelectric power
          also indicated the positive sign of current carriers. The
Card 1/4 Hall e.m.f. in a ferromagnetic may be represented in the

SOV/126-7-2-28/39

Galvanomagnetic Properties of Manganese Phosphides

form $E = R_0 H + R_f I$, where R_0 is the ordinary Hall effect constant, H is the magnetic field intensity, R_f is the extraordinary Hall effect contant, and I is the magnetization. The value of R_0 is related to the current-carrier density (Ref 4) and, therefore, this density can be found from measurement of the Hall effect at temperatures sufficiently far from the ferromagnetic Curie point. The authors measured the Hall effect at $77^\circ K$, and the results are shown in the form of the Hall e.m.f. per unit length between the electrodes and per unit current density in Fig 1. The results of Fig 1 refer to the 50 at.% alloy $(MnP)_3$ for which the value of R_0 was found to be 3×10^{-4} cm^3/coulomb. Assuming that only holes exist in manganese phosphide, their density n was found from $R_0 = 1/ne$ (e is the hole charge). The value of n deduced in this way was 2×10^{22} cm^{-3}. The $E = E(H)$ curves taken below and above the Curie point show that the Hall e.m.f. is a linear function of magnetization. The extraordinary Hall effect constant was found to decrease with temperature, in agreement with the Karplus-Luttinger

Card 2/4

Galvanomagnetic Properties of Manganese Phosphides

SOV/126-7-2-28/39

relationship (Ref 5) $R_f \sim \rho^k$, where ρ is the electrical resistivity and k is an integer. The effect of transverse and longitudinal magnetic fields on electrical resistance of Mn-P alloys was measured on the same samples which were used in the Hall effect studies. The sign of $\Delta R/R$ was negative in both transverse and longitudinal fields. The results of measurements exhibited the characteristics of even effects in the para-process region. According to Akulov (Ref 6), $\Delta R/R = aH^{2/3}$ at the Curie point, $\Delta R/R = cH$ below the Curie point, and $\Delta R/R = bH^2$ above the Curie point. These relationships are well obeyed; for example, for 50 at.% (MnP) alloy $a = 1.4 \times 10^{-5}$ at $21^\circ C$, $b + 5 \times 10^{-12}$ at $55^\circ C$, and $c = 3.5 \times 10^{-7}$ at $4.5^\circ C$. The value of $\Delta R/R$ reaches its maximum, which is of the order of 1% for MnP, at $22^\circ C$ (Fig 2) and this temperature is not affected by the composition of the alloy or the applied magnetic field. The temperature at which the maximum of $\Delta R/R$ occurs coincides with the temperature of a break in the curves of electrical resistivity. $\Delta R/R$ is practically the same in longitudinal and transverse fields; the small

Card 3/4 differences between the longitudinal and transverse effects

SOV/126-7-2-28/39

Galvanomagnetic Properties of Manganese Phosphides

   are due to changes of resistance in magnetic fields which
   occur in all substances and increase quadratically with
   the magnetic field. At the liquid-nitrogen temperature
   the change of resistance on application of a magnetic
   field is much smaller than at room temperature. This is
   due to the small contribution of the para-process which
   is negligible at the liquid-nitrogen temperature.
   There are 2 figures and 6 references, 2 of which are
   Soviet, 2 English, 1 German and 1 French.

ASSOCIATION: Institut fiziki metallov AN SSSR (Institute of Metal
   Physics, Ac.Sc. USSR)

SUBMITTED: March 4, 1958

Card 4/4

67734

18.1275
24.7600

SOV/126-7-3-42/44

AUTHORS: Krasovskiy, V. P.   and   Fakidov, I. G.

TITLE: Thermoelectrical Properties of Manganese Phosphides
             (Termoelektricheskiye svoystva fosfidov margantsa)

PERIODICAL: Fizika metallov i metallovedeniye, Vol 7, Nr 3, pp 477-478
             (USSR)

ABSTRACT: Slightly Abridged Translation

             1. Manganese-phosphorus alloys containing from 27.5 at.%
     P upwards exhibit ferromagnetic properties at below 25°C,
     according to Guillaud (Ref.1).   In the vicinity of that
     temperature a magnetic transformation occurs in these alloys,
     the temperature of which depends, to a large extent, on the
     magnetic field strength. However, investigations carried out
     by the authors of this paper into the electrical conductivity
     and galvanomagnetic effects of manganese-phosphorus alloys
     in the concentration range of 33 to 53 at.% P have shown that
     the temperature of the magnetic transformation is independent
     of the magnetic field strength of these alloys.   The Curie
     point in an MnP alloy, according to electrical and magnetic
Card 1/4 measurements, was found to be 22°C.

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Thermoelectrical Properties of Manganese Phosphides

2. Manganese volatilized in vacuum and red phosphorus
(99.9%) were used for the manufacture of the alloys. The
alloys were made by heating a mixture of manganese and
phosphorus powders in evacuated quartz ampoules at $650^\circ C$.
In order to obtain the alloys in equilibrium condition the
ampoules were kept in the furnace at the above temperature
for 50 hours. The alloys were then furnace cooled to room
temperature. The alloys thus obtained were chemically
analysed in order to determine the manganese content, and
were also submitted to an X-ray phase analysis. Test
specimens were cut out by means of an abrasive wheel and subsequently
ground. The length of the specimens was 8-12 mm, width
3-5 mm and the thickness 0.6-1.5 mm. The thermo-e.m.f.
was measured at temperatures ranging between that of boiling
nitrogen and $+100^\circ C$. A temperature difference of $10\text{-}15^\circ C$
was brought about between the ends of the specimen by means
of a small heater. The junction of two identical copper-
constantan thermocouples was firmly pressed against the
sides of the specimen. The thermal-e.m.f. of the specimen
was measured in relation to copper by a compensation apparatus
Card 2/4 having a sensitivity of 10^{-7} v/mm. The accuracy of the

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Thermoelectrical Properties of Manganese Phosphides

measurements of the thermal-e.m.f coefficient α was 10%.

3. Two manganese-phosphorus alloys were investigated: one containing 40 at.% P and the other 46 at.% P. Both alloys are two-phased, consisting of the phases MnP and Mn$_2$P. The results of measurement of the temperature dependence of the thermal-e.m.f. coefficient between -180 and +100°C for the above alloys are shown in Fig.1. From the graph it can be seen that the nature of the temperature dependence of α for both alloys is identical. In the temperature range -180 to -50°C α decreases with increase in temperature, has a minimum at around -50°C and then increases. At a temperature of above -50°C the thermo-electrical properties of the alloys correlate with the results of electrical conductivity measurements (see Fig.2). The metallic nature of the electrical conductivity indicates a small thermal-e.m.f. value ($\alpha < \mu v/deg.$) and its temperature dependence, i.e. the value of α, is proportional to the temperature. The behaviour of α at below -50°C is anomalous and cannot be correlated with the electrical conductivity measurements.

Card 3/4 The reason for the nature of such a dependence of $\alpha(t)$ of

66392

SOV/58-59-10-22982

24,7600

Translation from: Referativnyy Zhurnal, Fizika, 1959, Nr 10, p 168 (USSR)

AUTHOR: Krasovskiy, V.P.

TITLE: Electrical and Galvanomagnetic Properties of Manganese Phosphides

PERIODICAL: Tr. In-ta fiz. metallov. AS USSR, 1959, Nr 22, pp 59 - 66

ABSTRACT: The author studied the electrical conductivity, the thermo-emf, the
            variation of resistance in a magnetic field, and the Hall effect in
            a number of alloys of the Mn-P system containing from 33 to 53 atomic %
            of F n the $-156°$ to $+100°C$ temperature range. The alloys were prepared
            from electrolytic Mn (99.99%), purified by sublimation in a vacuum, and
            red P (99.9%). In order to alloy the powdered mixture it was heated up
            to $650°C$ in evacuated quartz ampoules and aged for 50 hours. Cooling was
            conducted at the rate of 2 deg/min. For all alloys the temperature
            dependence of the specific resistance exhibits a ferromagnetic Curie
            point at $22°C$. It is assumed that only the MnP contained in these alloys
            undergoes a ferromagnetic transition. The small magnitude of the thermo-
            emf corresponds to the metallic character of the conductivity of these
            alloys, and its positive sign attests to p-conductivity. The variation

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Electrical and Galvanomagnetic Properties of Manganese Phosphides

in resistance of the MnP alloy in a transverse magnetic field is negative for all temperatures and all fields up to 20 kilooersteds. The absolute magnitude of the galvanomagnetic effect is at its maximum at 22°C. The Hall effect has a positive sign in the case of all the alloys. Above 42°C the Hall emf depends linearly on the magnetic field, while below this temperature it presents the break which is characteristic of ferromagnetics. The carrier concentration for MnP, determined from the ordinary Hall constant, is equal to $2 \cdot 10^{22}$ cm^{-3} at $-196°C$, while the mobility of the carriers is equal to ~ 1 cm^2/V $\cdot$ sec. (In-t fiziki metallov AN SSSR).

G.V. Fedorov

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24(3)

AUTHORS: Fakidov, I. G., Krasovskiy, V. P.   SOV/56-36-4-15/70

TITLE: The Magnetization and the Magnetocaloric Effect of Manganese Phosphide (Namagnichennost' i magnetokaloricheskiy effekt fosfida margantsa)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959, Vol 36, Nr 4, pp 1063-1067 (USSR)

ABSTRACT: In the introduction the measurements and the theory of Guillaud (Refs 1-3) are discussed in short. Guillaud had shown that the temperature dependence of MnP at low temperatures follows the T^2-law. The magnetic moment of a manganese atom was determined as amounting to $1.2 \mu_B$, and for the temperature of the magnetic transformation θ_f Guillaud mentioned $25°C$ and expressed the opinion that θ_f depends in a high degree on magnetic field strength. The authors of the present paper further investigated the magnetocaloric effect and the magnetization of MnP within the temperature range of θ_f and at various values of H. Preparation of the sample as well as course and method of

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The Magnetization and the Magnetocaloric Effect of Manganese Phosphide

SOV/56-36-4-15/70

measurements are described. The results are shown by means of diagrams and are discussed. An investigation of the temperature dependence of the electric resistance $\varrho = \varrho(t)$ and the magneto-caloric effect $\Delta t(t)$ showed the characteristic salient point in the curve (cf family of curves figure 1 for H-values between 1000 and 15000 Oe) at 22°C. The nature of this salient point is similar to that of ferromagnetics passing through Curie point. Figure 2 shows the dependence of the caloric effect Δt on the square of magnetization σ for $0 < \sigma^2 < 2000$ in 2 diagrams. The families of curves have a shape that deviates slightly from that of a straight line. Finally, the temperature dependence of the spontaneous magnetization σ_s is investigated by the method developed by K. P. Belov (Refs 6-8). The method developed by Belov for ferromagnetic alloys and ferrites is called the "method of thermodynamic coefficients"; it is based upon evaluation of the curves of real magnetization by means of the thermodynamic equation $H = a\sigma + b\sigma^3$, where a and b are the thermodynamical coefficients. For $H = 0$ it is found that near Curie temperature $\sigma_s^2 = -a/b$, and it is possible to determine also the position of the Curie point by means of this equation,

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The Magnetization and the Magnetocaloric Effect of Manganese Phosphide

SOV/56-36-4-15/70

because for a = 0 it is true that $T = \theta_f$. The results obtained by evaluation of measuring results with respect to the magnetization curve are shown by figure 3. Determination of the Curie point by employing the Belov-method gives the value of 21.1°C, which is in agreement with the value determined from the magnetocaloric effect. Contrary to Guillaud, the authors found that magnetic transformation temperature does not depend on magnetic field strength. In conclusion, the results obtained are discussed in short from the point of view of the s-d exchange model (Vonsovskiy, Vlasov, reference 10). The ξ-values (from $(\sigma_s/\sigma_0)^2 = \xi(1-T/\theta)$) are approximately 3.4 (obtained according to data concerning the magnetocaloric effect) or approximately 3 (according to data obtained by employing the method of "curves of equal magnetization"), i.e. ξ corresponds approximately to the value obtained according to the "quasi-classical" theory of ferromagnetism. The authors thank K. B. Vlasov for letting them know the results obtained by his work and for discussions, and they also thank V. N. Novogrudskiy

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The Magnetization and the Magnetocaloric Effect of Manganese Phosphide   SOV/56-36-4-15/70

for assisting in measurements. There are 4 figures and 11 ref-
erences, 5 of which are Soviet.

ASSOCIATION: Institut fiziki metallov Akademii nauk SSSR (Institute for
               Metal Physics of the Academy of Sciences, USSR)

SUBMITTED: October 23, 1958

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KRASOVSKIY, V. P., Cand Phys-Math Sci -- (diss) "Electrical, galvano-magnetic and magnetic properties of manganese phosphides." Sverdlovsk, 1960. 10 pp; (Ministry of Higher and Secondary Specialist Education RSFSR, Ural'skiy State Univ im A. M. Gor'kiy); 150 copies;price not given; bibliography at end of text (10 entries); (KL, 22-60, 150)

83166

S/056/60/039/002/003/044
B006/B056

24.2200

AUTHORS: Krasovskiy, V. P., Fakidov, I. G.

TITLE: The Magneto-caloric Effect Within the Range of Low-temperature Transformation of Magnetite

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960, Vol. 39, No. 2 (8), pp. 235-241

TEXT: The present paper makes a contribution towards explaining the nature of the low-temperature transformation of magnetite. The authors investigated the particular features of the magneto-caloric effect in this temperature range, as well as the temperature dependence of the first anisotropy constant. The investigations were carried out with two spherical magnetite single crystals of different stoichometric composition and two different potentiometric devices having a sensitivity of $\sim 10^{-8}$v/mm. The experimental arrangement and the performance of the experiments are described first; they were the same for both of the samples. The samples were demagnetized at room

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The Magneto-caloric Effect Within the Range
of Low-temperature Transformation of
Magnetite

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B006/B056

temperature, after which they were cooled to the boiling point of
liquid nitrogen (without magnetic field). The temperature dependence of
the magneto-caloric effect was studied while the samples were heated in
a Dewar. Next, also the effect of the cooling conditions in the presence
of a magnetic field of different strength upon the magnitude of the
effect was investigated. Within the transformation range, the dependence
of the magnitude of the effect ΔT on the field strength was measured;
the measurements began at the lowest and extended up to the highest
field strength. At low field strengths, magnetite has jumps in the
magnetization I. The I(T)-measurements carried out in the range from
85° to $125^\circ K$ showed that already at 15,000 oersteds no jumps occur any
longer. In all cases $\vec{H}$ was parallel to the [111] direction of the single
crystals. The absolute error in measurement of ΔT was about $2.10^{-3} \circ K$.
Fig. 1 shows $\Delta T = f(T)$ for both samples when heated (the samples had
previously been demagnetized at room temperature and had been cooled to
$80^\circ K$ without a magnetic field). The curves had been drawn at 13,800 and
17,000 oe, respectively. They are in the negative range, first show a

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The Magneto-caloric Effect Within the Range
of Low-temperature Transformation of
Magnetite

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steep decline, have a sharp minimum at 104° and $110^{\circ}K$, respectively,
after which they rise just as steeply, and cut the zero axis at 145° and
$125^{\circ}K$, respectively. In the positive range, ΔT slowly increases linearly
with T. In the range of these minima of the curves, an "effect of the
first measurement" could be observed (the first application of the field
led to an irreversible temperature drop, and ΔT was about double as
large as in the following experiments). Outside the range 95 - $115^{\circ}K$
this effect practically does not exist at all. Fig. 2 shows the
temperature dependence of the reversible magneto-caloric effect in the
range of the minima. $\Delta T = f(H)$ is shown in Fig. 3 (recorded at
$109.6^{\circ}K$). In fields up to 3000 oe, ΔT is positive, but attains only about
$0.01^{\circ}K$. The sharp minimum of the temperature dependence of the magneto-
caloric effect is related with a low-temperature transformation of
magnetite in which the crystallographic symmetry of the lattice changes.
Sample No. 2 showed a second minimum at about $90^{\circ}K$, which was, however,
very flat; within this range, sample No. 1 only showed a greater spread
of measured values; it is, however, possible that by means of more

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sensitive measuring instruments a minimum would be found also in this
case. The temperature dependence of the first derivative of the
anisotropy constant of sample No. 2 is shown in Fig. 4. It turned out
that below the transformation point (110°K) the magnetite lattice is not
cubic but rhombohedral. N. S. Akulov and N. L. Bryukhatov are mentioned.
There are 4 figures and 16 references: 6 Soviet, 2 British, 6 US, 1 Dutch,
and 1 Japanese.

ASSOCIATION: Institut fiziki metallov Akademii nauk SSSR (Institute of
Physics of Metals of the Academy of Sciences of the USSR)

SUBMITTED: February 19, 1960 (initially) and April 11, 1960 (after
revision)

Card 4/4

ANNENKOV, V.A.; GAZARYAN, L.M.; KRASOVSKIY, V.P.; POMERANTSEV, V.V.

"Economic aspects of nonferrous metallurgy in the U.S.S.R." by
S.A. Pervushin and others. Reviewed by V. A. Annenkov and others.
Izv. vys. ucheb. zav.; tsvet. met. 4 no.1:184-187 '61.
(MIRA 14:2)
(Nonferrous metals--Metallurgy) (Pervushin, S.A.)
(Rachkovskii, S. Ya.)   (Gol'braikh, S. IA.)
(Malinova, R. D.)   (Bykova, T. D.)

20220

24 2200   1144, 1138, 1160   S/126/61/011/002/025/025
            1137,1147,1158   E073/E535

AUTHORS: Krasovskiy, V. P. and Fakidov, I. G.

TITLE: On the Nature of the Magnetic Ordering of MnP

PERIODICAL: Fizika metallov i metallovedeniye. 1961, Vol.11, No.2,
             pp. 319-320

TEXT: On the basis of earlier work the authors express a
certain hypothesis on the nature of the magnetic ordering of MnP.
The crystal lattice of MnP presents to some extent a distorted
NiAs structure of the type with a rhombohedric elementary cell.
Comparison of the crystal structure of MnP with the NiAs type
structure is shown in the figure, where the circles of the larger
diameter represent projections of atoms of P and Mn, the circles
of the small diameter represent projections of atoms of the
undistorted NiAs type structure. The top part of the figure shows
a projection into the plane (001), the lower part shows a projection
onto the plane (010). The manganese atoms are not located on a
straight line and form zigzag chains that are parallel to the axis b
and the P atoms form chains that are parallel to the axis c. The
axis b corresponds to the hexagonal axis c, whilst the axis c
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On the Nature of the Magnetic S/126/61/011/002/025/025
                                          E073/E535

corresponds to the axis   a   of the structure NiAs in hexagonal
representation. As regards the character of distribution of the
atoms, the crystal lattice MnP is similar to the lattice of
orthoferrites with a structure of the pseudo-perovskite type
(space group D_{2h}^{16} - Pb_{nm}). The presence of such a structure permits
distribution of magnetic moments that differ from the strictly
parallel or antiparallel distribution, i.e. "angular" distribution
of the magnetic atoms of the near neighbours is possible (the
nearest "neighbours" in the illustration are at a distance of 2.69 Å
from each other). In presence of a relatively crystalline magnetic
anisotropy, which apparently takes place in MnP (Ref.4), the
possibility arises that the vectors of the magnetic moments will
deviate from their planes and will be located at some (small) angle
relative to each other (in accordance with the model of weak ferro-
magnetism proposed by I. Y. Dzyaloshinskiy (Ref.5). As a result,
a spontaneous magnetic moment will arise which differs from zero and
represents the vector sum of the magnetic moments of adjacent atoms.
Since the electron states of the manganese atoms in the MnP compound
are not known. the absolute values of the magnetic moments of the
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On the Nature of the Magnetic...   S/126/61/011/002/025/025
                                          E073/E535

adjacent atoms are also not known. "Angular" distribution of the
magnetic moments would permit elucidating the great difference
between the magnitudes of the moments calculated for a manganese
atom and those obtained from susceptibility measurements ($3.6 \mu_B$)
and the saturation magnetization ($1.2 u_B$). The assumption of
Guilland (Ref.6) on the presence of a ferromagnetic mechanism in
MnP was not confirmed by the results of earlier investigations of
the authors of this paper relating to the temperature dependence
of the paramagnetic susceptibility and of the magnetocalorific
effect. The theoretical calculation to be published by
N. Guseynov and Ye. A. Turov (Izv. AN Azerb.SSR) confirms the
assumptions of the authors of this paper of an "angular" distribu-
tion of the magnetic moments of adjacent atoms in MnP. The
calculation leads to an angle between the vectors of the magnetic
moments amounting to $165°$ which, however, has to be experimentally
verified. The most reliable means of establishing the magnetic
structure of MnP is by means of neutron diffraction. X-ray
spectrum analysis of MnP would also be useful, since it would
permit elucidating the electron states of the manganese atoms in
this compound. Investigation of the susceptibility of the para-
Card 3/5

On the Nature of the Magnetic...   S/126/61/011/002/025/025
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E073/E535

process in strong magnetic fields (about 100 kOe) and of the temperature dependence of the magnetization in the temperature range 77-4.2°K may prove an indirect but very important method of verifying the hypothesis on the magnetic structure of MnP. In the case of angular distribution of the magnetic moments, an increase in magnetization can be anticipated in strong magnetic fields (a gradual turning of the vectors of the magnetic moments into the direction of the field). The susceptibility should be a finite value at low temperatures and should not tend to zero at $T \rightarrow 0°K$. The authors are investigating the magnetization of MnP in strong magnetic pulse fields. There are 1 figure and 7 references: 5 Soviet and 2 non-Soviet.
[Abstractor's Note: This is a slightly condensed translation.]
ASSOCIATION: Institut fiziki metallov AN SSSR
            (Institute of Physics of Metals AN SSSR)
SUBMITTED: July 4, 1960

Card 4/5

S/126/61/011/003/017/017
E032/E514

AUTHORS: Krasovskiy, V. P. and Fakidov, I. G.

TITLE: A Study of the Specific Heat of Manganese
             Monophosphide MnP

PERIODICAL: Fizika metallov i metallovedeniye, 1961, Vol.11, No.3,
             pp.477-479

TEXT: B. G. Whitmore (Ref.1) has established that
manganese monophosphide has an anomaly in the specific heat curve
at room temperatures. However, the method used by Whitmore is
said to have been found insufficient to obtain accurate data on
this anomaly.   The present authors have investigated the anomaly
using 99.99% pure manganese and 99.9% pure phosphorus. The
compound MnP was obtained by heating a mixture of manganese and
phosphorus in evacuated quartz containers to 650°C. The mixtures
were kept at that temperature for 50 hours. The specific heat was
measured with the aid of the vacuum calorimeter described by
I. G. Fakidov and N. P. Grazhdankina (Ref.6). In order to improve
the heat transfer, the calorimeter was filled with the powder and then
hydrogen gas was introduced at a pressure of 50 mm Hg. The

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A Study of the Specific Heat ...   S/126/61/011/003/017/017
                                        E032/E514

temperature was measured with a platinum resistance thermometer having $R_{100}/R_0 = 1.390$.   A potentiometer, having a sensitivity of 3 x 10^{-8} V/mm, was employed so that changes of the order of 10^{-5} ohm could be measured. This corresponded to a temperature change of 2.5 x 10^{-3} deg.   The heat dissipated in the thermometer was 0.0002 of the power produced by the heaters.   The results obtained are shown in the figure, in which the specific heat is given in cal/g deg.   As can be seen from the figure, the anomaly reaches a maximum at $17°C$.   The temperature corresponding to the maximum is very close to the Curie point of MnP ($22°C$).   The latter was determined by the present authors using the magneto-caloric effect (Ref.2).   This suggests that the observed specific heat anomaly is of a ferromagnetic nature.   The magnitude of the anomaly shown by the dashed line turns out to be 2.15 cal/mol deg. The corresponding figure for $CrS_{1.17}$ was found in Ref.6 to be 2.58 cal/mol deg.   The theoretical value obtained using measurements of the magneto-caloric effect (Ref.2) and the theory given by P. Weiss and R. Forrer (Ref.8) gives a figure of 10 R cal/mol deg.

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A Study of the Specific Heat ...   S/126/61/011/003/017/017
                                        E032/E514

On the other hand, the method of "thermodynamic coefficients" given
by K. P. Belov in Ref.9 gives 0.2 R cal/mol deg.   It is concluded
that the energy of magnetic crystallographic anisotropy in MnP is
relatively large and this may be responsible for the difference
between the theoretical (thermodynamic)   and the experimental
results for the anomaly.   There are 1 figure and 11 references:
7 Soviet and 4 non-Soviet.

ASSOCIATION: Institut fiziki metallov AN SSSR (Institute of
             Physics of Metals AS USSR)

SUBMITTED: October 4, 1960

Figure
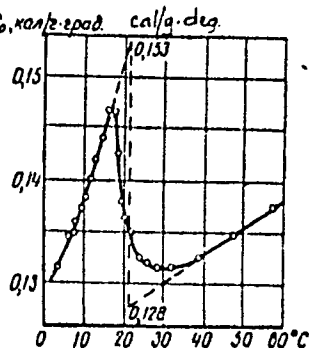
Card 3/3

L 38267-65   EEO-2/EWT(d)/EEC-4   Pn-4/Po-4/Pq-4/Pg-4/Pk-4/P1-4   BC
ACCESSION NR: AP5007443   S/0286/65/000/004/0068/0068

AUTHORS: Yerokhin, G. N.; Konstantinov, V. D.; Krasovskiy, V. S.; Kulagin, V. S.;
Chernousenko, Yu. V.

TITLE: Method for checking the working order and accuracy of operation of in-
duction compasses and a device applying this method. Class 42, No. 168470

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 4, 1965, 68

TOPIC TAGS: compass

ABSTRACT: This Author Certificate presents a method for checking the working
order and accuracy of operation of induction compasses, e.g., in aircraft, by
creating an artificial magnetic field. To conduct the compass check without re-
moving it from the object and without changing the object position in the earth's
magnetic field, the earth's magnetic field is neutralized by creating an arti-
ficial magnetic field whose magnitude and direction are automatically determined.
An artificial field of the earth, variable in any direction in the horizontal
plane, can be reproduced; this acts on the sensing element of the induction com-
pass. A device applying this method is provided with units for neutralizing and
imitating the earth's magnetic field in the form of electric coils. The coils,

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L 38267-65
ACCESSION NR: AP5007443

which define and vary the artificial magnetic field of the earth, are placed near
or inside the sensing element of the induction compass and are engaged by the
outer edge part of the device.

ASSOCIATION: Voyenno-vozdushnaya inzhenernaya ordena Lenina krasnoznamennaya
akademiya im. prof. N. Ye. Zhukovskogo (Air Force Engineering Academy, Lenin's
Order of the Red Banner)

SUBMITTED: 19Sep63   ENCL: 00   SUB CODE: NG

NO REF SOV: 000   OTHER: 000

Card 2/2

KRASOVSKIY, Ye.

Moving Pictures

White Russia's best film supply depot.   Kinomekhanik no. 8, 1951.

Monthly List of Russian Accessions, Library of Congress, April 1952.   UNCLASSIFIED.

KRASOVSKIY, YE.

Moving-Picture Projection

Clipping film perforations, Kinomekhanik, no. 7, 1952.

Monthly List of Russian Accessions, Library of Congress, October 1952.   UNCLASSIFIED

KRASOVSKIY, V.V.; PROTOPOPOV, A.N.

Complications of staphylococcal pneumonias in children.
Pediatriia 41 no.9:7-11 S '62.   (MIRA 15:12)

1. Iz detskoy khirurgicheskoy kliniki (dir. - prof. N.V.
Zakharov) i kafedry rentgenologii i radiologii (zav. - prof.
V.N.Shtern) Saratovskogo meditsinskogo instituta.
            (STAPHYLOCOCCAL DISEASE) (PNEUMONIA)

KRASOVSKIY E. B. Topographical and morphological variations in arachnoid endotheliomas Problems of Neurosurgery, Moscow 1949, 13/3 (22-32) Tables 3 Illus. 3

A survey of 290 cases of meningioma, seen from 1932-1947, in which Cushing's classification is closely followed. The topographical situation of the tumour may induce its histological type; for instance psammomas were more frequent among spinal meningiomas, probably because of less favourable conditions and, consequently, earlier involution of the tissue of the tumour.

Boerman - Chram (VIII, 5)

So: Neurology & Psychiatry Section VIII Vol. 3 No. 7-12

KRASOVSKIY, Ye.B.

Problem of perithelial sarcomas of the brain. Vopr. neirokhir. 16
no. 4:33-37 July-Aug 1952.   (CLML 23:3)

1. Candidate Medical Sciences. 2. Of the Pathologico-anatomic Lab-
oratory (Head -- Prof. L. I. Smirnov, Corresponding Member AMS USSR),
Institute of Neurosurgery imeni Academician N. N. Burdenko (Director
-- Prof. B. G. Yegorov, Corresponding Member AMS USSR), Academy of
Medical Sciences USSR.

KRASOVSKIY, Ye.B.; SMIRNOV, L.I., chlen-korrespondent Akademii meditsinskikh
    nauk SSSR, professor, saveduyushchiy; YEGOROV, B.G., chlen-korrespondent
    Akademii meditsinskikh nauk SSSR, professor, direktor.

    Local changes in cranial bones in malignant arachnoidal endothelioma. Vop.
    neirokhir. 17 no.2:32-39 Mr-Ap '53.   (MLRA 6:5)

    1. Patologoanatomicheskaya laboratoriya Instituta neyrokhirurgii imeni aka-
    demika N.N. Burdenko (for Smirnov). 2. Institut neyrokhirurgii imeni aka-
    demika N.N. Burdenko (for Yegorov). 3. Akademiya meditsinskikh nauk SSSR
    (for Smirnov and Yegorov).   (Brain--Tumors)

KRASOVSKIY, Ye.B. (Moscow).

Malignant arachnoendothelioma.   Arkh.pat. 16 no.1:57-64 Ja-Mr '54.
(MLRA 7:5)

1. Iz patologoanatomicheskoy laboratorii (zaveduyushchiy - chlen-
korrespondent Akademii meditsinskikh nauk SSSR L.I.Smirnov) Instituta
neyrokhirurgii im. akademika N.N.Burdenko (direktor - chlen-korrespon-
dent Akademii meditsinskikh nauk SSSR B.G.Yegorov) Akademii meditsinskikh
nauk SSSR.   (Brain--Tumors)

KRADOVKIN, Ye. B.

KRADOVKIN, Ye. B. - "Primary sarcoma and sarcoma-like tumors of the brain and brain membranes" (Pathological anatomy). Moscow, 1955. Acad Medical Sci USSR. (Dissertations for degree of Doctor of Medical Sciences.)

So: Knizhnaya letopis', No 48. 26 November 1955. Moscow.

KRASOVSKIJ, J.B.

Differential diagnosis of intracranial tumors. Cesk. neur. 20
no.2:93-101 Mar 57.

1. Vyzkumny ustav psychiatrie Ministerstva zdravotnictvi SSSR,
reditel D. D. Fedotov.
    (CRANIUM, neoplasms
        differ. diag., review (Cz))

KRASOVSKIY, Ye.B.

Pathoanatomical changes of the brain in certain intracranial tumors
[with summary in French]. Zhur.nevr.i psikh.57 no.4:451-456 '57.
(MLRA 10:7)

1. Institut psikhiatrii Ministerstva zdravookhraneniya SSSR.
        (BRAIN NEOPLASMS, pathology,
            sarcoma (Rus))
        (SARCOMA, pathology,
            brain (Rus))

USSR / Human and Animal Morphology. Nervous System.   S-2

Abs Jour: Ref Zhur-Biol., No 14, 1958, 64763.

Author : Krasovskiy, Yo. B.
Inst   : Scientific Research Institute of Psychiatry,
          Ministry of Health of USSR.
Title   : Pathological Anatomy of Diseases of the Cerebrum.

Orig Pub: M-vo Zdravookhr SSSR. n.-i. in-t psikhiatrii. M.,
          1957, 271 pp., ill., 12 r.

Abstract: No abstract.

Card 1/1

USSR/Human and Animal Morphology (Normal and   S-2
       Pathological). Nervous System. Central
       Nervous System.

Abs Jour: Ref Zhur-Biol., No 16, 1958, 74293

Author : Krasovskiy, Ye. B.
Inst   : -
Title   : On the Structural Changes of the Brain,
           Especially of the Hypothalamic Region in
           Schizophrenia.

Orig Pub: V sb.: Vopr. psikhiatrii. Vyp. 2, M., 1957,
           66-69

Abstract: In various clinical forms of schizophrenia
           with a chronic course in cerebrum (in the
           cortex and subcortical ganglia), there is a
           diffused dystrophic and atrophic process
           with a loss of neurons. The greatest number

Card   : 1/3

USSR/Human and Animal Morphology (Normal and   S-2
   Pathological). Nervous System. Central
   Nervous System.

Abs Jour: Ref Zhur-Biol., No 16, 1958, 74293

   of structural changes of the nerve cells
   is noted in the III layer of the cerebral
   cortex, especially in the frontal region.
   The dystrophic process in the neurons of
   the pons Varolii and medulla oblongata are
   expressed in disturbances of protein, fat
   and H_2O metabolisms. In the semioval centers
   of the large hemispheres, edema and swelling
   of the brain are found; in foci of demyelini-
   zation and in the hypothalamic region - a
   sharp fatty dystrophy of nerve cells with dis-
   integration and loss of bundles of myeline fi-
   bers, especially those which run from the optic

Card : 2/3

KLASVICH, Ye. B., Doc Med Sci--(diss) "Prim... ...re.... ...d ...redi... tu-
...o... of t... brai... ...d ...ni... ...a. (P..th.l.g... /... ...c)." P.., 125°. 26 pp
(S...o...l Mos St...t.... ...d Inst in ...J.Piro...v), ...i.... ...ist of ...uth...'...
...t...: ... ...-...6 (2; titles)   (..., ...-5..., 10...)

- ...

KRASOVSKIY, Ye.B.; FEDOTOV, D.D.,prof.,red.

[Arachnoidendoitothelimoas of the central nervous system;
pathological anatomy] Arakhnoidendoteliomy tsentral'noi nervnoi
sistemy; patologicheskaia anatomiia. Moskva, Vses. ob-vo
nevropatologov i psikhiatrov, 1958. 303 p.   (MIRA 11:12)

1. Direktor Nauchno-issledovatel'skogo instituta psikhiatrii
Ministerstva zdravookhraneniya SSSR(for Fedotov).
                    (MENINGES--TUMORS)

KRASOVSKIY, Yevgeniy Borislavovich; FEDOTOV, D.D., prof., red.

[Tumors of the brain and the meninges] Opukholi mozga i
mozgovykh obolochek; patologicheskaia anatomiia. Moskva,
M-vo zdravookhraneniia SSSR. Vol.1. 1958. 409 p. Vol.2.
1958. 810 p.   (MIRA 12:1)
        (BRAIN--TUMORS)   (MENINGES--TUMORS)

KRASOVSKIY, Ye.B.

Dependence of the structure and topography of an arachnoendothelioma on the patient's age. Vop. psikh. no. 3:382-386 '59.

(MIRA 13:10)

(BRAIN—TUMORS)

KRASOVSKIY, Yevgeniy Borislavovich, doktor med. nauk; LAGUTINA, Ye.V.,
red.; NAZAROVA, A.S., tekhn. red.

[Nervous system and health]Nervnaia sistema i zdorov'e. Mo-
skva, Izd-vo "Znanie," 1962. 45 p. (Narodnyi universitet Kul'-
tury: Fakul'tet zdorov'ia, no.6)   (MIRA 15:8)
     (NERVOUS SYSTEM)   (HYGIENE)

KRASOVSKIY, Yevgeniy Borislavovich, doktor med. nauk;

[Schizophrenia; its pathological anatomy]Shizofreniia; pato-
logicheskaia anatomiia. Moskvu, Medgiz, 1962. 302 p.
(MIRA 15:9)

(SCHIZOPHRENIA)

MATSPANOVA, O.D., kand. med. nauk; IANKOVITS, A.V., prof.;
     KRASOVSKIY, Ye.B., doktor med. nauk, red.; LIEENZON,
     L.L., kand. med.nauk, red.

[Authors abstracts of scientific papers completed in 1961]
Avtoreferaty nauchnykh rabot, vypolnennykh v 1961 g. Red.
koll.: O.D.Matspanova i dr. Moskva, 1962. 118 p.
                                        (MIRA 16:11)

1. Moscow. (Province) Oblastnoy nauchno-issledovatel'skiy in-
stitut akusherstva i ginekologii. 2. Direktor Moskovskogo
oblastnogo nauchno-issledovatel'skogo instituta akusherstva i
ginekologii (for Matspanova). 3. Zamestitel' direktora po na-
uchnoy chasti Moskovskogo oblastnogo nauchno-issledovatel'sko-
go instituta akusherstva i ginekologii (for Lankovits).
   (OBSTETRICS)   (GYNECOLOGY)   (PEDIATRICS)

KRASOVSKIY, Ye.N., inzh.

Unit for washing antifriction bearings. Torf.prom.38 no.2:37 '61.
(MIRA 14:3)

1. Ryazanovskoye torfopredpriyatiye Mosoblsovnarkhoza.
(Bearings(Machinery))

SOV/112-59-2-2996

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 2, p 107 (USSR)

AUTHOR: Shapovalenko, A. G., Lauer, V. V., and Krasovskiy, Ye. P.

TITLE: Feasibility of a Vibrating-Contact-Type Speed Regulation for an Induction Motor Fed by a Single Generator of Commensurable Capacity
(O vozmozhnosti impul'snogo regulirovaniya skorosti asinkhronnogo dvigatelya, pitayushchegosya ot avtonomnogo generatora soizmerimoy moshchnosti)

PERIODICAL: Izv. Kiyevsk. politekhn. in-ta, 1957, Vol 26, pp 283-290

ABSTRACT: A vibrating-contact-type speed regulation for a wound-rotor induction motor fed by a synchronous generator of commensurable capacity is described. The system has fairly rigid mechanical characteristics within 10-20% of the rated speed range with a load torque within 100%. Resistors are connected in the rotor circuit of the motor. The rotor circuit is alternately closed and opened by a contactor. A 2-winding relay controls the contactor. One winding is supplied with a rectified voltage taken from the motor stator while the other

Card 1/2

SOV/112-59-2-2996

Feasibility of a Vibrating-Contact-Type Speed Regulation for an Induction Motor . . .

winding is fed from the rotor circuit. If the motor speed droops, the relay operates, closing the rotor circuit, and the motor speeds up. If the motor speed exceeds its average value, the relay armature drops out, opening the rotor circuit and the speed becomes lower; then the cycle is repeated. The open and closed contactor times can be determined from the linearized mechanical characteristic of the motor. The rigidity of the motor mechanical characteristic is computed with due allowance for the generator synchronous reactance. The experimental outfit consisted of a type SGS-4.5 generator (4.5 kw, 230 v, 11.3 amp) and an AK51/4 motor (2.8 kw, 1,370 rpm, 220 v, 11.5 amp) and an 11.8-kg-m^2 flywheel. Oscillograms of full rpm cycles with various loads are presented. Frequency of contactor operation varied from 0.18 to 0.8 cps. Bibliography: 5 items.

V.V.G.

Card 2/2

KRASOVSKIY, Ye.P.

Speed control of an induction motor with a phase rotor by means
of saturation chokes. Izv. KPI 26:305-314 '57.   (MIRA 11:6)

1.Kafedra elektrifikatsii promyshlennykh predpriyatiy Kiyevskogo
politekhnicheskoge instituta.
    (Electric motors, Induction) (Automatic control)

KRASOVSKIY, Ya.P., kand. tekhn. nauk; LAUER, V.V., inzh.; SHAPOVALENKO, A.O.

Alternating-current time relay using a magnetic amplifier. Izv. vys. ucheb. zav.; energ. no. 1:59-64 Ja '58.   (MIRA 11:7)

1. Kiyevskiy ordena Lenina politekhnicheskiy institut.
(Electric relays)
(Magnetic amplifiers)

102-58-1-8/12

AUTHORS: Krasova'kiy, E.P., Lauer, V.V. and Shapovalenko, O.G.

TITLE: Use of Pulse Control to Produce Low Speeds in Induction
            Motor Drives (Zastosuvannya impul'snogo upravlinnya z
            metoyu cderzhannya niz'kykh shvydkostey v elektropryvodakh
            z asinkhronnymy dvygunamy)

PERIODICAL: Avtomatika (Kiyev), 1958, Nr 1, pp 75 - 84 (Ukrainian SSR)

ABSTRACT: The advantages of this system when the time spent at
            low speeds is short (cheapness, simplicity) are pointed out
            and two new circuits using polarised relays on three-phase
            circuits are given. The time for which it is permissible to
            operate the motor in this way increases with the moment of
            inertia of the system (referred to the motor shaft). The
            speed can be varied from 0.04 to 0.20 of the synchronous speed,
            the speed-load characteristic being very flat. A motor with a
            phase-fed rotor is, of course, required; in this case,
            derivative (velocity) feedback can be effected by using the
            back-e.m.f. of the rotor, no tachometer being needed. The
            motor is caused to accelerate and decelerate by closing and
            opening the rotor circuit. A 37-kW 1460 r.p.m. motor has
            been used to test the circuits; at a mean speed of 90 r.p.m.,
            the fluctuations were ± 10 r.p.m., with a referred moment of
            inertia of 400 - 800 kgm².

Card 1/2

102 9-1-8/12

Use of Pulse Control to Produce Low Speeds in Induction Motor Drives

There are 5 figures and 2 Soviet references.

ASSOCIATION: Kyivs'kyy ordena Lenina politekhnichnyy instytut (Kiyev Order of Lenin Polytechnical Institute)

SUBMITTED: February 27, 1957

Card 2/2

8(2)

AUTHORS:

TITLE:

PERIODICAL:

ABSTRACT:

Card 1/2

SOV/107-58-12-40/55

Krasovskiy, Ye., Lauer, V., Shapovalenko, A.

Voltage Indicators for Autotransformers
(Indikatory napryazheniya dlya avtotrans-
formatorov)

Radio, 1958, Nr 12, p 43   (USSR)

The authors describe two simple voltage in-
dicator circuits for autotransformers for
controlling the voltage supply of television
sets and radios. The first one (Figure 1a)
contains two filament lamps switched in to
the input of the transformer, one (L_1) di-
rectly and the other (L_2) through the re-
sistance R. This indicator works on the
principle of the considerable dependance of
the filament lamp luminous flux on the cur-
rent flowing through it. Experiments have
shown that this indicator can regulate a
voltage with an accuracy of +3 to -5%. In

SOV/107-58-12-40/55

Voltage Indicators for Autotransformers

the second indicator (Figure 16) a choke DR
(with a steel core without an air gap),
a capacitor C and a filament tube L , con-
nected to part of the autotransformer winding,
are used. At a nominal voltage, automatic
oscillations are present in the indicator,
which make the lamp flicker; if the voltage
is higher than the nominal it burns without
flickering and if it is lower than nominal
it does not light up at all. The indicator
has an accuracy of plus or minus 3%. There
are 2 circuit diagrams.

Card 2/2

KRASOVSKIY, Yevgeniy Petrovich, kand. tekhn. nauk; SHAPOVALENKO,
Aleksandr Grigor'yevich, kand. tekhn. nauk; KOSTENKO,
Yu.V., retsenzent; POLYANSKIY, N.A., inzh., red.

[Automatic control of asynchronous motors] Avtomaticheskoe
upravlenie asinkhronnymi dvigateliami. Kiev, "Tekhnika,"
1964. 170 p.   (MIRA 17:7)

KRASOVSKIY, Ye.S.; ZAIKIN, N.N.

Modernization of equipment. Mashinostroitel' no.4:22-25 Ap '57.
(MLRA 10:5)
(Lathes)

BRUSILOVSKIY, D.A.; BULGAKOV, L.N.; GENIS, B.M.; KVARTIN, L.M.;
    KRASOVSKIY, Ye.S.; MIKHAYLOV, D.I.; NATOCHANNYY, A.S.; NIKOL'SKIY,
    V.N.; POPOV, M.P.; SIGODZINSKIY, A.A.; SKOMOROSHKIN, A.F.;
    CHASOVNIKOV, G.V.; DERBISHER, A.V., kand. ekon. nauk, red.;
    DULKIN, N.A., spets. red.; BONDAROVSKAYA, G.V., red.; TORSHINA,
    Ye.A., tekhn. red.

[Overall automation and modernization of equipment and production
processes at the First State Bearing Plant] Kompleksnaia avtoma-
tizatsiia i modernizatsiia oborudovaniia i protsessov proizvodstva
na Pervom gosudarstvennom podshipnikovom zavode. Moskva, TSentr.
biuro tekhn. informatsii, 1959. 84 p.   (MIRA 15:1)

1. Russia (1917-   R.S.F.S.R.) Moskovskiy gorodskoy ekonomicheskiy
administrativnyy rayon. Sovet narodnogo khozayastva.
    (Moscow—Bearing industry)   (Automation)

S/117/62/000/007/002/003
A004/A101

AUTHOR: Krasovskiy, Ye. S.

TITLE: Automatic wear compensation

PERIODICAL: Mashinostroitel', no. 7, 1962, 14

TEXT: The author reports on a method of automatically compensating for
the wear of guides, suggested by professor A. S. Pronikov, Doctor of Technical
Sciences, which was carried out on the MC3 (MS3) model 3250B internal grinder.
Based on the combined work of MVTU im. Bauman and 1GPZ, the machine was equipped
with an automatic table position compensator and special supports in the form of
plastic inserts. The operating principle of the automatic compensators consists
in that, in the case of wear or deformation of the supports, the inserts are fed
automatically and the table preserves its accuracy. The table position is con-
trolled by electrocontact pickups which are periodically switched on for a short
time interval. The automatic adjustment of the table position is arranged in
such a way that, in proportion to the wear of the plastic supports, the table,
being lowered with the aid of a cam fastened to it, gives a command to an elec-

Card 1/2

Automatic wear compensation

S/117/62/000/007/002/003
A004/A101

tromagnet via the electrocontact pickup, which causes the plastic supports to rise. A total of six plastic supports are mounted on the machine. The compensation for wear of the guides can be operated also by hand. The automatic wear compensation of the machine guides maintains its accuracy during the whole service life. It prevents the wear of the machine bed and makes it possible to use hardened table guides.

Card 2/2

KOSOV, F.F.; KRASOVSKIY, Ye.S.; DAVYDOV, V.N.

Problems of railroad electrification on single-phase current.
Transp.stroi. 12 no.7:10-13 Jl '62.   (MIRA 16:2)

1. Nachal'nik Gosudarstvennogo proyektno-izyskatel'skogo instituta
po proyektirovaniyu elektrifikatsii dorog i energeticheskikh
ustanovok (for Kosov). 2 Nachal'nik tekhnicheskogo otdela
Gosudarstvennogo proyektno-izyskatel'skogo instituta po
proyektirovaniyu elektrifikatsii dorog i energeticheskikh
ustanovok (for Krasovskiy). 3. Glavnyy spetsialist Gosudarstven-
nogo proyektnoizyskatel'skogo instituta po proyektirovaniyu
elektrifikatsii dorog i energeticheskikh ustanovok (for Davydov).
(Railroads--Electrification)

KRASOVSKIY, Yu.M. (Komsomol'sk-na-Amure).

Example of an engineering problem for a trigonometry lesson in
grade 10. Mat. v shkole no.5:92-93 S-O '58.   (MIRA 11:10)
                    (Trigonometry--Problems, exercises, etc.)